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EXAMINER

KANG, INSUN

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/749,873	<b>Applicant(s)</b> UOLA ET AL.	
	<b>Examiner</b> INSUN KANG	<b>Art Unit</b> 2193	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-13,15-20 and 22-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-13, 15-20, and 22-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 2193

### DETAILED ACTION

1. This action is in response to the amendment filed on 5/22/2009.
2. Claims 1, 2, 4-13, 15-20, and 22-37 are pending in the application.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4-6, 10-13, 15, 19, 20, 22-28, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blow (WO 99/53621, published on 10/21/1999) in view of Zhuang et al. (2004/0123270) hereafter Zhuang.

Per claim 1:

Blow discloses:

- an interface for providing a connection with an accessory (i.e. "attachment of the external accessory 102 through interface 112," page 4, lines 4-5)
- said accessory comprising a library for enabling said electronic device to use the accessory (i.e. "Accessory interface memory 118 contains the interface software needed for the mobile station 100 to functionally interact with the specific external accessory 102," page 6 lines 6-10).
- wherein the electronic device further comprises means for providing said library available to the electronic device during operation of the electronic device (i.e. "mobile station controller 108 writes the accessory interface software into interface upload

Art Unit: 2193

memory 106, where it is temporarily stored,” page 6 lines 12-17; “dynamic upload,” page 2, lines 18-21);

- said interface is configured to make said library available to the electronic device directly (i.e. “download of the accessory interface software code from accessory interface memory 118 in external accessory 102 to interface upload memory 106 in mobile station 100,” page 6 lines 26-30).

wherein the interface is configured for making said library available without downloading said library from said accessory device so as to make said library accessible as if said library were installed on said electronic device (“dynamic upload to the mobile station only when it is required,” page 8).

Blow does not explicitly teach said library being accessible by loading parts of said library that is available to said electronic device. However, Zhuang teaches that loading parts of a library was known in the pertinent art, at the time applicant's invention was made, for savings of limited flash memory space (i.e. 0011). It would have been obvious for one having ordinary skill in the art to modify Blow's disclosed system to incorporate the teachings of Zhuang. The modification would be obvious because one having ordinary skill in the art would be motivated to dynamically load only needed classes to maximize the memory space usage (0009).

Per claim 2:

Blow further discloses:

- an application programming interface, wherein the electronic device is further configured for providing said application programming interface available to the

Art Unit: 2193

electronic device (i.e. “all of the necessary routines to interact fully with the external accessory 102,” page 6 lines 30-32).

Per claim 4:

Blow further discloses:

- an interface management module for downloading said library to the electronic device (i.e. control routines, page 6 lines 35-39).

Per claim 5:

Blow further discloses:

- said library and said application programming interface providing a connection between said accessory device and an application loaded to the electronic device (page 6 lines 30-32).

Per claim 6:

Blow further discloses:

- said interface configured for detecting an attachment of the accessory to the electronic device (i.e. “attach detector 110,” page 4 lines 3-11).

Per claim 10:

Blow further discloses:

Art Unit: 2193

- means for making said application programming interface available for at least one application loaded to the electronic device before starting the execution of said application (i.e. the accessory interface software ...may contain the algorithms for controlling the volume of the auxiliary speaker,” page 6 lines 30-35).

Per claim 11:

Blow discloses:

- An accessory comprising a library for enabling an electronic device to use the accessory (i.e. “Accessory interface memory 118 contains the interface software needed for the mobile station 100 to functionally interact with the specific external accessory 102,” page 6 lines 6-10)

- and an interface for providing a connection with said electronic device (i.e. “attachment of the external accessory 102 through interface 112,” page 4, lines 4-5).

- said interface is configured for making said library available to the electronic device during operation of the electronic device directly (i.e. “download of the accessory interface software code from accessory interface memory 118 in external accessory 102 to interface upload memory 106 in mobile station 100,” page 6 lines 26-30; “dynamic upload,” page 2, lines 18-21);

wherein the interface is configured for making said library available without downloading said library from said accessory device so as to make said library accessible as if said library were installed on said electronic device (“dynamic upload to the mobile station only when it is required,” page 8).

Art Unit: 2193

Blow does not explicitly teach said library being accessible by loading parts of said library that is available to said electronic device. However, Zhuang teaches that loading parts of a library was known in the pertinent art, at the time applicant's invention was made, for savings of limited flash memory space (i.e. 0011). It would have been obvious for one having ordinary skill in the art to modify Blow's disclosed system to incorporate the teachings of Zhuang. The modification would be obvious because one having ordinary skill in the art would be motivated to dynamically load only needed classes to maximize the memory space usage (0009).

Per claim 12:

Blow further discloses:

- a functionality that is usable for applications on said electronic device (i.e. "Accessory interface memory 118 contains the interface software needed for the mobile station 100 to functionally interact with the specific external accessory 102," page 6 lines 6-10).

Per claim 13, it is the accessory version of claim 2, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 2 above.

Per claim 15:

Blow further discloses:

- said library comprises computer program having computer readable instructions (i.e. page 6 lines 30-35).

Art Unit: 2193

Per claims 19-20, they are the system versions of claims 1-2 , respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-2 above.

Per claims 22-26, they are the method versions of claims 1,2, and 4-6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1,2, and 4-6 above.

Per claim 27:

Blow further discloses:

- downloading said library from the accessory device to the mobile communication device when the attachment of the accessory device is detected (i.e. page 4, lines 3-11).

Per claims 28 and 32, they are the method versions of claims 5 and 10, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 5 and 10 above.

Per claim 33, it is the program product version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Per claim 34:



Art Unit: 2193

Blow discloses:

- A method for providing accessing an accessory of an electronic device, the method comprising storing a library to the accessory for enabling said electronic device to use the accessory (i.e. “mobile station controller 108 writes the accessory interface software into interface upload memory 106, where it is temporarily stored,” page 6 lines 12-17).
- providing a connection between said electronic device and said accessory (i.e. “attachment of the external accessory 102 through interface 112,” page 4, lines 4-5)
- providing said library available to the electronic device (i.e. “Accessory interface memory 118 contains the interface software needed for the mobile station 100 to functionally interact with the specific external accessory 102,” page 6 lines 6-10).
- making said library available to the electronic device directly (i.e. “download of the accessory interface software code from accessory interface memory 118 in external accessory 102 to interface upload memory 106 in mobile station 100,” page 6 lines 26-30); wherein the interface is configured for making said library available without downloading said library from said accessory device so as to make said library accessible as if said library were installed on said electronic device (“dynamic upload to the mobile station only when it is required,” page 8).

Blow does not explicitly teach said library being accessible by loading parts of said library that is available to said electronic device. However, Zhuang teaches that loading parts of a library was known in the pertinent art, at the time applicant's invention was made, for savings of limited flash memory space (i.e. 0011). It would have been obvious for one having ordinary skill in the art to modify Blow's disclosed system to

Art Unit: 2193

incorporate the teachings of Zhuang. The modification would be obvious because one having ordinary skill in the art would be motivated to dynamically load only needed classes to maximize the memory space usage (0009).

Per claim 35, it is the method version of claim 2, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 2 above.

Per claim 36:

Blow discloses authentication of external accessory and that the secret code stored in the mobile station is used to authenticate the external accessory (i.e. page 5, lines 27-39).

Therefore, it would be obvious that if the mobile station program(s) is not valid, the accessory library wouldn't be available for such an unauthorized program.

Per claim 37:

Blow discloses: a platform having a hardware section and a software section, said platform being configured to accept and store information about said library after said library is detected, wherein the electronic device is further configured to use the information to access said library when said library is needed by an application running on said electronic device, said library being usable by said application as if installed on said platform (i.e. page 6, lines 4-17, 26-35).

Zhuang further teaches class loading in a mobile Java device to load classes (i.e. 0004).

Art Unit: 2193

5. Claims 7, 8, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blow (WO 99/53621, published on 10/21/1999), in view of Zhuang et al. (2004/0123270) hereafter Zhuang, and in further view of Isberg et al. (US Patent 6,201,975) hereafter Isberg.

Per claim 7:

Blow teaches an attach detector that detects the physical connection of mobile station to external accessory by detecting a transition in current (i.e. page 4, lines 8-11). Blow and Zhuang do not explicitly teach detecting a detachment of the accessory from the electronic device. However, Isberg teaches such a detachment detector was known in the pertinent art, at the time applicant's invention was made, to release the connection to the accessory unit (i.e. col. 1 lines 60-65). It would have been obvious for one having ordinary skill in the art to modify Blow's disclosed system to incorporate the teachings of Isberg. The modification would be obvious because one having ordinary skill in the art would be motivated to detect the detachment of the accessory to disable the connection between the two devices and release memory space used to accommodate any code for the accessory unit as suggested by Isberg (i.e. co. 1 lines 60-65).

Per claim 8:

Isberg further discloses:

- an interface management module for disabling a connection between an application loaded to the electronic device and said library when the detachment of the accessory is detected (i.e. co. 1 lines 60-65).

Art Unit: 2193

Per claims 29 and 30, they are the method versions of claims 7 and 8, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 7 and 8 above.

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blow (WO 99/53621, published on 10/21/1999), in view of Zhuang et al. (2004/0123270) hereafter Zhuang, and in further view of Wendelrup et al. (WO 02/102035 A2, published on 12/19/2002) hereafter Wendelrup.

Per claims 16 and 17:

Blow and Zhuang do not explicitly teach indicating the attachment and detachment of the accessory to the electronic device. However, Wendelrup teaches displaying such a status indication to the electronic device was known in the pertinent art, at the time applicant's invention was made, to indicate the accessory status information to the user (i.e. page 2, lines 23-32; page 7, lines 12-17). It would have been obvious for one having ordinary skill in the art to modify Blow's disclosed system to incorporate the teachings of Wendelrup. The modification would be obvious because one having ordinary skill in the art would be motivated to indicate the attachment and detachment of the accessory device to the electronic device to the user as suggested by Wendelrup.

7. Claims 9, 18, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blow (WO 99/53621, published on 10/21/1999), in view of Zhuang et al. (2004/0123270)

Art Unit: 2193

hereafter Zhuang, and in further view of Applicant's Admitted Prior Art (hereinafter referred to as "APA") disclosed in the background section of the instant application.

Per claim 9:

Blow discloses the "accessory specific interface software being stored in the external accessory itself (page 2, lines 19-20)." Blow and Zhuang do not explicitly teach that the accessory further comprising at least one application to be loaded to the electronic device. However, APA teaches downloading of application software stored on an accessory device to a mobile device was known in the pertinent art, at the time applicant's invention was made, to download a desired application of the accessory device to the electronic device ( i.e. page 3 lines 16-18). It would have been obvious for one having ordinary skill in the art to modify Blow's disclosed system to incorporate the teachings of APA. The modification would be obvious because one having ordinary skill in the art would be motivated to download any desired application stored on the external accessory device.

Per claims 18 and 31, they are the accessory and method versions of claim 9 respectively, and are rejected for the same reasons set forth in connection with the rejection of claim 9 above.

### ***Response to Arguments***

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed on 5/22/2009 have been fully considered but they are not persuasive.

Art Unit: 2193

The applicant states that: Zhuang does not teach any classloading of information form an accessory device. Moreover, Blow teaches away from classloading as Blow requires that the entire software is loaded.

In response, the instant specification simply states that the libraries are made available without downloading by “using other means (page 11).” There is no specific explanation for the other means. Zhuang indeed discloses classloading to load the classes into a mobile Java device “only when they are used, in a truly dynamic fashion (0024).” Furthermore, the applicant acknowledges that a classloader is responsible for locating libraries...loading the classes contained within the libraries typically done on demand (remark, 9). As Zhuang teaches loading parts of a library as needed (i.e. 0011), it would have been obvious to modify Blow to incorporate the teachings of Zhuang to dynamically load only needed parts of the accessory interface software to maximize the memory space usage (0009) as taught by Zhuang.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2193

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSUN KANG whose telephone number is (571)272-3724. The examiner can normally be reached on M-R 7:30-6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis A. Bullock, Jr. can be reached on 571-272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Insun Kang/  
Primary Examiner, Art Unit 2193